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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,077	11/22/1999	DANA C. BOOKBINDER	16-6-1	3342

22928 7590 09/26/2002

CORNING INCORPORATED  
SP-TI-3-1  
CORNING, NY 14831

EXAMINER

MARKHAM, WESLEY D

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/447,077

Applicant(s)

BOOKBINDER ET AL.

Examiner

Wesley D Markham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 34-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 50-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10,11. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Acknowledgement is made of applicant's amendment A, filed as paper #9 on 6/24/2002, in which a new title was submitted, Claims 1, 4, 14, 30, 32, and 33 were amended, Claims 50 – 58 were added, and the applicant affirmed the election of Group I, drawn to a method of protecting a silica containing article used in the manufacture of an optical fiber. Claims 1 – 58 (with Claims 34 – 49 being withdrawn from further consideration by the examiner as being drawn to a non-elected invention) are currently pending in U.S. Application Serial No. 09/447,077, and an Office Action on the merits follows.

### ***Election/Restrictions***

2. Applicant's election without traverse of Group I in Paper No. 6 is acknowledged.

### ***Information Disclosure Statement***

3. Acknowledgement is made of the two (2) information disclosure statements filed by the applicant as papers #10 (6/24/2002) and #11 (6/25/2002), respectively. The documents cited thereon have been considered as indicated on the attached copies of the two (2) PTO-1449 forms.

### ***Drawings***

4. The examiner notes that the applicant states that two (2) sheets of formal drawings corresponding to Figures 1 and 2 were filed along with the response to the previous Office Action. However, only one (1) sheet of formal drawings was received by the Office (i.e., the sheet corresponding to Figure 1). This sheet of formal drawings corresponding to Figure 1 is approved by the examiner. The sheet corresponding to Figure 2 is still informal.

### ***Specification***

5. The objection to the specification, set forth in paragraph 3 of the previous Office Action, is withdrawn in light of applicant's amendment A. Specifically, the applicant's newly proposed title of the invention is acceptable.
6. The examiner again notes that, in the examination of this application, the term "a silica-containing article used in the manufacture of an optical fiber" has been interpreted to exclude the optical fiber itself after it has been drawn from a given preform.

### ***Claim Objections***

7. Claim 1 is objected to because of the following informalities: The word "[and]" in line 3 of amended Claim 1 appears to be a typographical error. The applicant is suggested to delete the word "[and]" from the claim. Appropriate correction is required.

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8. Claims 3, 8, 9, 13, 25, and 26 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, Claim 3 requires that the protective layer ablates during subsequent processing of the silica-containing article; Claims 8, 9, 25, and 26 require that the protective layer include carbon, preferably being organic; and Claim 13 requires the step of removing particulates from the protective layer. All of these limitations are already present in amended independent Claim 1.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 15 and 31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, independent Claim 1 (from which Claims 15 and 31 depend) requires ablating the protective layer by heating. Claims 15 and 31 require removing the protective layer before fiber draw. This combination of limitations constitutes "new matter". While the

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application as filed has support for ablating the protective layer by heating during the fiber draw, the application as filed does not have support for ablating the protective layer by heating before the fiber draw, as required by Claims 15 and 31. This limitation is "new matter" under 35 U.S.C. 112, first paragraph.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that formed the basis for the rejections under this section made in the previous Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. The rejection of (1) Claims 1 – 10, 12 – 19, 22 – 27, and 29 – 31 under 35 U.S.C. 102(b) as being anticipated by Tsuji et al. (JP 02-258643 A), set forth in paragraphs 7 – 8 of the previous Office Action, and (2) Claims 1 – 2, 5 – 7, 18 – 19, and 22 – 24 under 35 U.S.C. 102(b) as being anticipated by Elion (USPN 4,473,599), set forth in paragraphs 10 – 11 of the previous Office Action, is withdrawn in light of applicant's amendment A. Specifically, amended independent Claim 1 now requires that the protective layer be organic, particulates be removed from the protective layer by cleaning, and the protective layer be ablated (i.e., removed) by heating during subsequent processing of the silica-containing article. Neither Tsuji et al. nor Elion teaches all of the aforementioned claim limitations.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
15. The rejection of Claims 32 and 33 under 35 U.S.C. 103(a) as being unpatentable over Tsuji et al. (JP 02-258643 A) in further view of France (USPN 4,973,345) or Grabmaier (German Patent No. 28 53 873 A1), set forth in paragraph 15 of the previous Office Action, is withdrawn in light of applicant's amendment A. Specifically, amended independent Claim 1 now requires that the protective layer be organic, particulates be removed from the protective layer by cleaning, and the protective layer be ablated (i.e., removed) by heating during subsequent processing

of the silica-containing article. Tsuji et al., France, and Grabmaier, alone or in combination, do not teach or fairly suggest the combination of aforementioned limitations.

16. Claims 50 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji et al. (JP 02-258643 A) in view of Brack (USPN 4,218,294).
17. Tsuji et al. teach all the limitations of Claims 50 and 53 as set forth in paragraphs 7 and 8 of the previous Office Action, except for a method wherein the protective layer comprises a silane (Claim 50) or an alkyl ammonium compound, aryl ammonium compound, or wax (Claim 53). However, Tsuji et al. do teach coating a silica-containing article used in the manufacture of an optical fiber with a resin layer such as a polyester system, polyacryl system, polyvinyl system, polyurethane system, silicone system, etc. to prevent dust and dirt from contaminating the silica-containing article (i.e., preform) (page 5). Further, it is important that, after the resin layer of Tsuji et al. is peeled-off, no residual resin be present on the preform (page 6). Brack teaches that, in the art of producing polymeric release coatings (i.e., a process analogous to that of Tsuji et al.), it is desirable to add an oily or waxy material such as a silane or a wax to the polymeric coating composition so that release properties of the coating are improved (Col.1, lines 57 – 65, and Col.5, lines 21 – 39). Therefore, it would have been obvious to one of ordinary skill in the art to add a silane or a wax to the resin coating compositions of Tsuji et al. with the reasonable expectation of successfully formulating a protective coating that, when



peeled off, leaves no residual resin on the preform (i.e., due to the improved release properties of the coating provided by the silane or wax compound) as desired by Tsuji et al.

18. Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji et al. (JP 02-258643 A) in view of Brack (USPN 4,218,294), and in further view of Oomen (USPN 5,534,748).
19. The combination of Tsuji et al. and Brack teaches all the limitations of Claims 51 and 52 as set forth above in paragraph 17, except for a method wherein the silane is at least one of a hydrocarbon silane and a fluorocarbon silane (Claim 51) or at least one of epoxy functional silanes, acrylate functional silane, amine functional silane, thiol functional silane, and phenyl functional silane (Claim 52). However, Brack teaches a silane in general and does not appear to be overly concerned with the exact silane chosen, so long as it is lipophilic (i.e., fat loving, i.e., hydrophobic) (Col.1, lines 62 – 65). Oomen teaches that the specific silanes claimed by the applicant are hydrophobic and are known as additives to coating solutions (Col.6, lines 12 – 20). Therefore, it would have been obvious to one of ordinary skill in the art to choose one or more of the specific silanes taught by Oomen for utilization in the process of the combination of Tsuji et al. and Brack with the reasonable expectation of successfully producing a resin film that, when peeled-off the silica-containing preform, leaves no residual resin on the preform (i.e., by choosing a

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specific silane (i.e., the silanes taught by Oomen) out of the genus of silanes taught generally by Brack).

20. Claims 54 – 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji et al. (JP 02-258643 A) in view of Woodhall et al. (USPN 5,739,191).

21. Tsuji et al. teach all the limitations of Claims 54 – 57 as set forth in paragraphs 7 and 8 of the previous Office Action, except for a method wherein the protective layer is at least partially removed by washing during subsequent processing of the silica-containing article (Claim 54), the washing is accomplished with water or a solvent (Claim 55), and the protective layer is a water-soluble polymer (Claim 56), particularly polyvinyl alcohol or hydroxymethylcellulose (Claim 57). However, it is the objective of Tsuji et al. to coat a silica-containing (i.e., glass) article used in the manufacture of an optical fiber with a removable / peelable resin layer such as a polyvinyl system to prevent dust and dirt from contaminating the silica-containing article (i.e., preform). Woodhall et al. teach that it was known in the art of removable protective coatings at the time of the applicant's invention to coat a glass article with polyvinyl alcohol (i.e., a water soluble polymer) to temporarily protect the article during subsequent processing operations, and then to remove the material (i.e., the polyvinyl alcohol) from the article with a water wash or by peeling, or by a combination of the two (Abstract, Col.1, lines 28 and 32 – 35, and Col.2, lines 28 – 33). It would have been obvious to one of ordinary skill in the art to utilize the temporary protection process / polyvinyl alcohol composition of Woodhall et al. to

protect the glass article of Tsuji et al. with the reasonable expectation of (1) success, as Woodhall et al. teach that their process is suitable for temporarily protecting glass articles, and (2) obtaining the benefits of utilizing the process of Woodhall et al., such as providing a protective film that adheres well to the surface to be protected, with few or no pinholes, and providing a film that can be easily removed with a water wash (Col.2, lines 28 – 33). Please note that Woodhall et al. also teach the functional equivalence of removing temporary protective films by washing and by peeling (i.e., the removal method taught by Tsuji et al.).

### ***Double Patenting***

22. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered

attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

23. Claims 1 – 16, 18 – 32, and 50 – 58 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1 – 28 of copending Application No. 09/569,562. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 1 – 28 of copending Application No. 09/569,562 teach all the limitations of Claims 1 – 16, 18 – 32, and 50 – 58 of the instant application in addition to teaching other process steps, such as shipping the coated silica-containing article from one factory to another for further processing. Since Claims 1 – 28 of copending Application No. 09/569,562 teach all the limitations of Claims 1 – 16, 18 – 32, and 50 – 58 of the instant application, one of ordinary skill in the art would have been motivated to perform the claimed process of the instant application. With regards to Claims 11 and 28 of the instant application, please note that the silane compounds taught by Claim 16 of Application No. 09/569,562 inherently form a self-assembled monolayer when applied to a silica-containing article.
24. Claims 17 and 33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1 – 28 of copending Application No. 09/569,562 (as set forth in paragraph 17 above) in view of Tsuji et al. (JP 02-258643 A).
25. Specifically, Claims 1 – 28 of copending Application No. 09/569,562 teach all the limitations of Claims 17 and 33 of the instant application, except a method in which

the silica-containing article coated with the protective layer is a glass tube used in an inside vapor deposition process. However, Claims 1 – 28 of copending Application No. 09/569,562 do teach coating an optical fiber preform in general for protection. Tsuji et al. teach coating a glass tube used in an inside vapor deposition process with a protective coating (page 2, Conventional Technology, and page 5). Tsuji et al. also teach that the protective coating protects the preform from dust and dirt, which cause problems in later optical fiber processing steps. Therefore, it would have been obvious to one of ordinary skill in the art to use the protective layer of Claims 1 – 28 of copending Application No. 09/569,562 to protect a glass tube used in an inside vapor deposition process with the reasonable expectation of protecting the tube from dust and dirt, as taught by Tsuji et al.

26. These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

#### ***Response to Arguments***

27. Applicant's arguments filed on 6/24/2002 have been fully considered but they are not persuasive. Specifically, the arguments are moot in view of the new grounds of rejection presented above.

#### ***Allowable Subject Matter***

28. Please note that no prior art has been applied against Claims 1 – 33 and 58. Independent Claims 1 (from which Claims 2 – 33 depend) and 58 require that the

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protective layer coated on the silica-containing article / preform used to manufacture an optical fiber be organic, particulates be removed from the protective layer by cleaning, and the protective layer by ablated (i.e., removed) by heating during subsequent processing of the silica-containing article (e.g., fiber drawing). The prior art, alone or in combination, does not teach or reasonably suggest all of the aforementioned claim limitations in the context of independent Claims 1 and 58.

### ***Conclusion***

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
30. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.
31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley D Markham whose telephone number is

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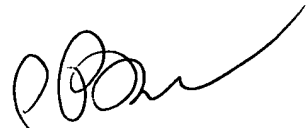
(703) 308-7557. The examiner can normally be reached on Monday - Friday, 8:00 AM to 4:30 PM.

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.
33. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Wesley D Markham  
Examiner  
Art Unit 1762

WDM

WDM  
September 23, 2002

  
SHRIVE P. BECK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700